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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,315	11/10/2003	Sachin Doshi	884.A59US1	4452

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EXAMINER

CASIANO, ANGEL L

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 08/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/705,315

Applicant(s)

DOSHI ET AL.

Examiner

Angel L. Casiano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

The present Office action is in response to application dated 30 November 2003.

Claims 1-32 are pending. All claims have been examined.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “100” has been used to designate both **SW1** and **SW2**.
2. The drawings are objected to because **Figure 2** needs to be labeled as such.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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3. **Figure 4** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6, 11-13, 17-23, 28, and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Scifres et al. [US 2003/0225905 A1].

Regarding claim 1, Scifres et al. teaches controlling a data flow (see Abstract, “flow allocation”) associated with at least one of a selected number of ports (see Abstract, “usage devices”; Figure 1) having a first actual usage value (see [0049], “computing the flow volume for each usage device”) above a determined average shared resource usage value (see [0049], “usage devices having flows exceeding the volume limit”) associated with the selected number of ports sharing a resource.

As for claim 2, Scifres et al. explicitly teaches determining an average shared resource usage value (see [0049], “Equation 3”).

As for claim 3, Scifres et al. teaches a data flow being associated with a restricted flow usage level, which is below the maximum flow usage level (See Page 8, claim 1 and [0048]). Therefore, the control step is removed once a portion of the flow rate is allocated according to the selected restriction rules (see [0048]).

As for claim 4, Scifres et al. teaches selecting the selected number of ports by locating at least one port included in a plurality of ports using an amount of the resource greater than a guaranteed minimum amount (see Page 5, [0049], “identifying the subset of usage devices”); determining a cumulative shared usage value based on the selected number of ports; and determining the determined average shared resource usage value by dividing the cumulative shared usage value by the selected number of ports (see Page 5, [0049], “Equation 3”).

As for claim 5, Scifres et al. teaches providing the users based on their associated rates (see [0012], “the usage limit is selected from sets of volume limit and rate limit”).

As for claim 6, Scifres et al. teaches repeatedly performing the determination of the usage value (see Page 8, claims 1 and 4-5, “repeating said computing, comparing, identifying, and associating steps”).

Regarding claim 11, Scifres et al. teaches a method for controlling a data flow (see Abstract, “flow allocation”) associated with at least one of a selected number of ports (see Abstract, “usage devices”; Figure 1). Accordingly, the reference also teaches an article comprising a machine-accessible medium having associated data, wherein the data, when accessed, results in a machine performing these steps. Therefore, the present claim is rejected under the same basis.

As for claims 12-13 and 17-18, the reference also teaches an article comprising a machine-accessible medium having associated data, wherein the data, when accessed, results in a machine performing these steps. Therefore, the present claims are rejected under the same basis.

Regarding claim 19, Scifres et al. teaches a method for controlling a data flow (see Abstract, “flow allocation”) associated with at least one of a selected number of ports (see Abstract, “usage devices”; Figure 1). Accordingly, the reference also teaches the apparatus for implementing the cited method. Therefore, the present claim is rejected under the same basis.

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As for claims 20-22, the reference also teaches the apparatus for implementing the method. Therefore, the present claims are rejected under the same basis.

As for claim 23, Scifres et al. teaches a network processor (see [0042], “22”).

Regarding claim 28, Scifres et al. teaches a method for controlling a data flow (see Abstract, “flow allocation”) associated with at least one of a selected number of ports (see Abstract, “usage devices”; Figure 1). Accordingly, the reference also teaches the system for implementing the cited method. Therefore, the present claim is rejected under the same basis.

As for claim 32, the reference teaches a communications medium coupled to the apparatus (see Figure 1).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 7-10, 14-16, 25-27, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scifres et al. [US 2003/0225905 A1] in view of Ruutu et al. [US 2003/0123392 A1].

As for claims 7 and 8, Scifres et al. teaches controlling a data flow (see Abstract, “flow allocation”) associated with at least one of a selected number of ports (see Abstract, “usage devices”; Figure 1). The reference also teaches “repeatedly” performing the “computing, comparing, identifying, and associating steps” (see Page 8, claim 5). However, Scifres et al. does not specify a dynamic threshold value or setting this value as a sum of the determined average shared resource usage value and a delta value. Regarding this limitation, Ruutu et al. teaches a dynamic sharing mechanism (see Abstract) and sets a nominal capacity to each data flow and additional capacity is shifted from a first flow to a second flow. At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to reduce the number of packet drops during congestion and improving network performance, as taught by Ruutu et al.

As for claim 9, Scifres et al. teaches determining a value according to speed (see Page 5, [0049], “rate”) and overall usage value (see “usage pattern”). However, this reference does not specify a delta value. Ruutu et al. teaches setting a nominal capacity to each data flow and shifting an additional capacity from a first flow to a second flow when its nominal capacity has been exceeded. This implements a dynamic buffer-sharing mechanism (see Abstract). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

As for claim 10, Scifres et al. does not teach the resource as comprising a memory. Ruutu et al. teaches a buffer (memory) sharing mechanism (see Abstract). At the time of the

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invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

As for claims 14-16, the combination of references also teaches an article comprising a machine-accessible medium having associated data, wherein the data, when accessed, results in a machine performing these steps. Therefore, the present claims are rejected under the same rationale.

Regarding claim 25, Scifres et al. teaches controlling a data flow (see Abstract, “flow allocation”) associated with at least one of a selected number of ports (see Abstract, “usage devices”; Figure 1) having a first actual usage value (see [0049], “computing the flow volume for each usage device”) above a determined average shared resource usage value (see [0049], “usage devices having flows exceeding the volume limit”) associated with the selected number of ports sharing a resource. Therefore, the Scifres et al. reference also teaches the apparatus for implementing this method. However, the reference does not teach the resource as comprising a memory (having a transmit queue storage) and a plurality of ports coupled to it. Ruutu et al. teaches a buffer (memory) sharing mechanism (see Abstract). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

As for claims 26-27, the combination of reference also teaches the apparatus for implementing the method. Therefore, the present claims are rejected under the same rationale.

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As for claims 30-31, the combination of reference also teaches the system for implementing the method. Therefore, the present claims are rejected under the same rationale.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scifres et al. [US 2003/0225905 A1] in view of Liang [US 5,933,427 A].

As for claim 24, the Scifres et al. does not explicitly teach a Layer 2 Ethernet switch. However, Liang teaches a Layer 2 Ethernet switch (see col. 2, lines 9-10). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to implement a common switch for an Ethernet LAN, as taught by Liang.

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scifres et al. [US 2003/0225905 A1] in view of Roberts [US 6104712 A].

As for claim 29, Scifres et al. does not teach an omni directional antenna to receive information included in the data flow. Regarding this limitation, Roberts teaches data flow received using omni directional antennas (see Figure 2). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to implement wireless networks, as taught by Roberts.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 571-272-4142. The examiner can normally be reached on 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 571-272-4083. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alc
09 August 2005


KIM HUYNH
PRIMARY EXAMINER
8/11/05